

AMENDMENTS TO THE CLAIMS

Please amend the claims to read as follows:

1. (Previously Presented) A peptide consisting of 18 amino acids, the peptide having the primary structure: 8 AA – Cysteine – 2 AA – Citrulline – 1 AA – Cysteine – 4 AA (SEQ ID NO:4); wherein the peptide contains a peptide turn comprising at least one citrulline residue, and
wherein said peptide is specifically recognised by rheumatoid arthritis autoimmune antibodies from patients suffering from rheumatoid arthritis.
2. (Original) A peptide according to claim 1 characterised in that said peptide is a cyclic peptide.
3. (Previously Presented) A peptide according to claim 1 characterised in that said peptide is biotinylated.
4. (Previously Presented) A peptide according to claim 1 characterised in that said peptide is a synthetic peptide.
- 5.–7. (Cancelled)
8. (Previously Presented) A peptide according to claim 1 characterised in that the amino acids flanking the citrulline residue are selected from glycine and serine.
9. (**Currently Amended**) A peptide according to claim 1 ~~comprising~~ consisting of the amino acid sequence QDTIHGHPCSXXGCRPGY (SEQ ID NO: 12) or QDTIVGWGCDSXGCRPGQ (SEQ ID NO: 17).
- 10.–11. (Cancelled)
12. (**Currently Amended**) A diagnostic kit for use in detecting autoantibodies present in the sera of patients with rheumatoid arthritis, said kit comprising at least one peptide according to claim 1 or antibody specific for at least one peptide of claim 1, with said peptide or antibody optionally bound to a solid support.

13. **(Currently Amended)** A diagnostic kit according to claim 12, said kit comprising a range of peptides according to claim 1, optionally in combination with antigens that constitute immunogenic determinants for other auto-immune diseases, wherein said peptides are attached to specific locations on a solid substrate.

14. **(Currently Amended)** A diagnostic kit according to claim 13, wherein said solid support is a membrane strip.

15.-17. (Cancelled)

18. **(Currently Amended)** An immunotoxin molecule comprising a cell recognition molecule, being a peptide of claim 1, covalently bound to a toxin molecule or active fragment thereof.

19. (Cancelled)

20. **(Currently Amended)** A diagnosticum for kit for use in detecting autoantibodies present in the sera of patients with rheumatoid arthritis comprising a peptide according to claim 1 or an immunotoxin molecule according to claim 18.

21.-22. (Cancelled)

23. (Previously Presented) A method for detecting antibodies present in sera from patients with rheumatoid arthritis, comprising:

- a) contacting a biological sample to be analyzed for the presence of said antibodies with a peptide of claim 1, and
- b) detecting the immunological complex formed between said antibodies and said peptide.

24.-27 (Cancelled)

28. (Previously Presented) The method of claim 23 wherein the peptide has the amino acid sequence QDTIHGHPCSXXGCRPGY (SEQ ID NO: 12).

29. (Previously Presented) The method of claim 23 wherein the peptide has the amino acid sequence QDTIVGWGCDSXGCRPGQ (SEQ ID NO: 17).